

IN THE DRAWINGS

A corrected drawing sheet for FIG. 1 is supplied herewith. FIG. 1 has been amended with the label "Prior Art" as suggested in the Office Action. No other changes have been made to the drawings at this time. Applicant will provide formal drawings upon receiving a notice of allowance.

IN THE SPECIFICATION

Please amend the specification as follows:

The paragraph beginning at page 37, line 20 is amended as follows:

FIG. 4 shows an exemplary system that comprises four computers, with a functional partitioning and allocation into four components:

1. Sonar software (processing data from the Fore sensors), Tasks [F_n] F₁-F₄ in FIG. 4,
2. Sonar software (processing data from the Aft sensors), Tasks [A_n] A₁-A₄ in FIG. 4,
3. Bearing Tracker software, Tasks [B_n] B₁-B₃ in FIG. 4, and
4. Display software, Tasks [D_n] D₁-D₃ in FIG. 4.

It should be noted that the system described in FIG. 4 is exemplary, and that the embodiments of the invention are not limited to the number of components shown in FIG. 4.

The paragraph beginning at page 44, line 2 is amended as follows:

Systems and methods for performing automated partitioning and allocation of components within distributed systems are disclosed. In one embodiment, a method for designing a heterogeneous distributed ~~system's configuration by populates a generic system's configuration~~ populates a generic, extensible model with the specifics of both the hardware and software elements of the system being designed. This model then drives a partitioning and allocation algorithm that compares the software needs against the hardware capacities, prioritizes based on system bottlenecks, and generates a resulting configuration. By modeling a system to

